FPRQ

Family-Provider Relationship Quality Measurement Development Project

REVIEW OF EXISTING MEASURES OF FAMILY-PROVIDER RELATIONSHIPS

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Family-Provider Relationship Quality

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Introduction

The purpose of this review is to guide the development of a new measure of the quality of family-provider relationships in early care and education settings. The review has been conducted as part of the Family-Provider Relationship Quality (FPRQ) project (see Project Overview on page 2). Intended as a companion document for the review of the theoretical and empirical literature on family-provider relationships (Forry, Bromer, Chrisler, Rothenberg, & Simkin, 2012), this measures review provides a summary of existing instruments from various fields that examine family-provider relationships and an overview of methodological, conceptual, and logistical issues related to producing a measure of the quality of these relationships. More specifically, the purpose is threefold: (1) to examine existing instruments designed to assess the quality of family-provider relationships; (2) to identify issues that will need to be considered in the development of a new measure of family-provider relationship quality; and (3) to identify gaps as well as promising approaches and items for measuring these relationships in the context of the constructs and elements that are articulated in the FPRQ conceptual model (see Figure 1).

Our review is guided by several working assumptions about the resulting measure. Specifically, the measure: (1) is intended for families with, and providers serving, children birth through five years old (and not yet in kindergarten); (2) is designed to work across multiple early care and education settings including Head Start and home-based child care; (3) should be applicable to culturally and economically diverse groups; (4) will assess elements from the four constructs identified in the FPRQ conceptual model (i.e., attitudes, knowledge, practices, and environment; see below); and (5) has the potential to be used as or adapted into a tool to inform assessments of family-provider relationships in Head Start programs or Quality Rating and Improvement Systems. In addition, no assumptions were made about the format of the new measure(s). Therefore, existing measures from a wide array of formats, including interviewer-administered surveys, self-administered surveys, observational measures, and checklists, were examined.

The measures review builds on work conducted in preparation for the "Family Sensitive-Caregiving and Family Engagement Working Meeting: Identifying and Measuring Common Concepts," which was held in June 2010 by the Office of Planning, Research and Evaluation (OPRE), in collaboration with the Office of Head Start and the Office of Child Care, of the U.S. Department of Health and Human Services' Administration for Children and Families. This measures review specifically integrates and adds to a methodological review and measures table developed in preparation for the Working Meeting and incorporates an analysis of theoretical perspectives developed for a presentation to the 2010 Annual Meeting of the Child Care Policy and Research Consortium. An integration of information from each of these sources, as well as knowledge gleaned from the Working Meeting and subsequent meetings with experts in the field, serves as the basis for the FPRQ conceptual model (presented below and explained in detail in the accompanying document) and this measures review.

Family-Provider Relationship Quality Measurement Development Project Overview

The Family-Provider Relationship Quality Measurement Development project (FPRQ) is developing a new measure to assess the quality of the relationship between families and providers of early care and education for children birth to 5 years of age. The overall purpose of this new measure is to examine four key constructs related to the family-provider relationship: attitudes, knowledge, practices, and environmental supports. The measure will examine this relationship from both the parent and the provider perspectives, and capture important elements of provider facilitation of family-provider relationships that map onto the constructs listed above. Examples of elements in the measure include attitudes of respect, commitment, openness to change; theoretical/substantive knowledge as well as family/child-specific knowledge; relationship skills including bi-directional communication, sensitivity, and flexibility, and goal-oriented skills, such as collaborating and advocating for families; and environmental supports, such as having an open and welcoming environment.

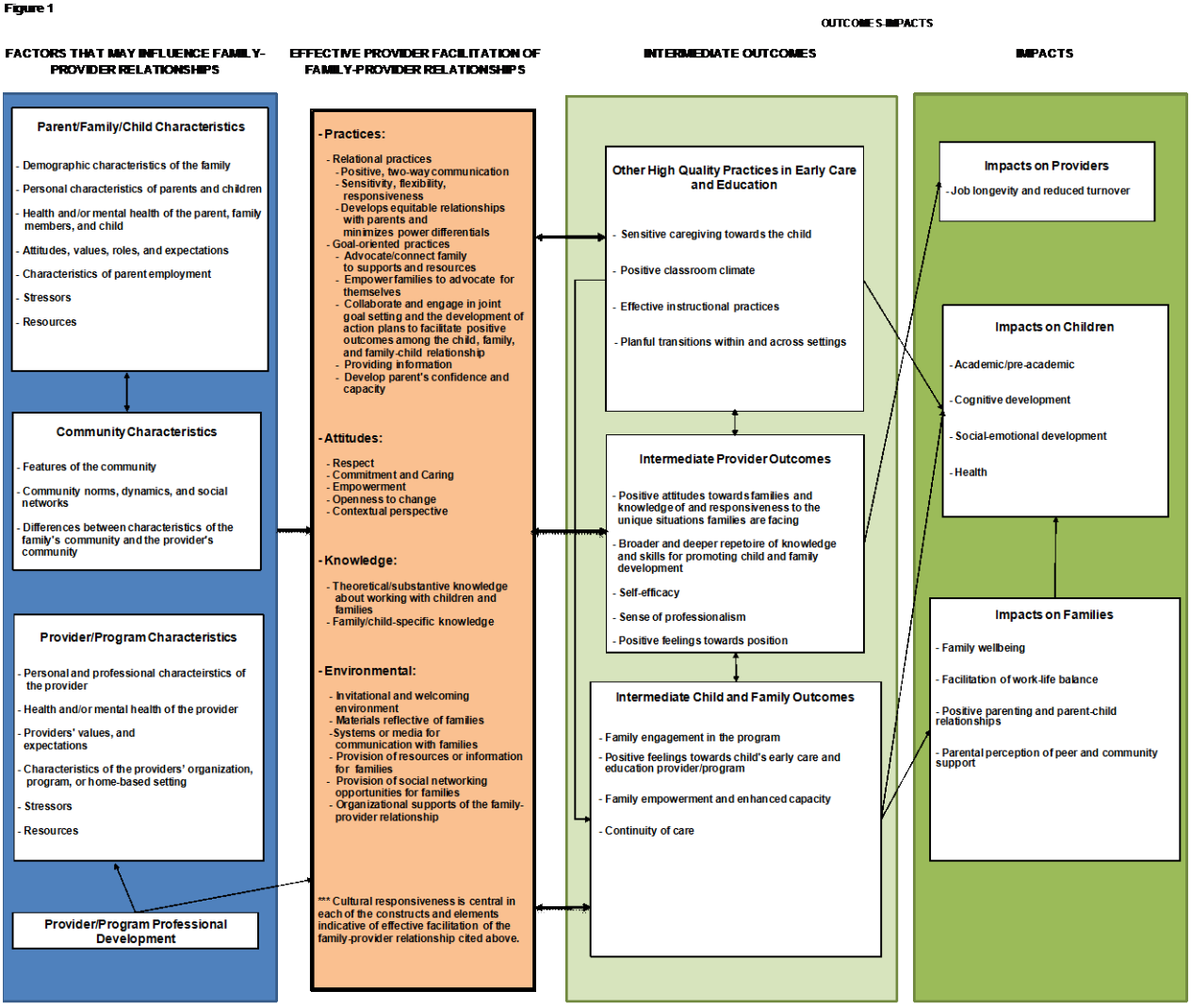
The goal of this project is to develop a measure that is appropriate for use across different types of early care and education settings, including Head Start and Early Head Start programs, center-based child care, home-based child care, and pre-k classrooms. In addition, a high priority of the project is to make the new measure culturally appropriate for diverse populations, including lower-income and higher-income families, ethnically/racially diverse providers and families, and Spanish-speaking families and providers.

Tasks for the FPRQ project include: (1) reviewing literature on family-provider relationships; (2) developing a conceptual model of the key components of family-provider relationships that promote family engagement and lead to better family, child and provider outcomes; (3) reviewing existing measures; (4) consulting with experts in relevant fields on possible content and format of the measure; (5) holding focus groups with parents and providers, developing items, and piloting the measure; (6) performing psychometric and cognitive testing to ensure the soundness of the measure; (7) developing a final measure (with manual) to be used for extensive data collection in a variety of care settings; and (8) developing a sustainability plan regarding training on the measure and production of future editions of the measure as needed.

The contract for this project was awarded by the Office of Planning, Research and Evaluation and the Office of Head Start in September 2010 to Westat in partnership with Child Trends, Bank Street College of Education, and the Erikson Institute.

The FPRQ conceptual model presented in the literature review (Forry et al., 2012) is based on empirical and conceptual literature related to family-provider relationships, reviews of the current Head Start and Early Head Start performance standards, and discussions with members of the FPRQ Technical Work Group and other experts in the field. The model integrates three conceptual perspectives on family-provider relationships: family support/family centered-care; parent involvement/family involvement/family engagement; and family-sensitive caregiving. The model articulates factors that may influence the family-provider relationship, such as parent, provider and community characteristics; elements of early childhood settings that the literature indicates facilitate providers' high quality relationships with families; and intermediate outcomes and potential longer-term impacts for families, children and providers (see Figure 1).

Figure 1



The central feature of the FPRQ conceptual model is the elements of effective provider facilitation of family-provider relationships that were identified in the literature review (Forry et al., 2012). These elements are organized into four constructs: attitudes, knowledge, practices, and environment (see orange box in Figure 1). In this model, "attitudes" refers to providers' beliefs about their interactions with families; "knowledge" refers to the information providers have about family systems, child development and parenting as well as specific knowledge about individual families; and "practices" refers how providers' beliefs and information are translated into their interactions with families. "Environment" refers to aspects of the physical environment, organizational climate, tone, and program resources that facilitate family-provider relationships. Cultural responsiveness is assumed to be an essential aspect of each of these constructs.

In large part, the FPRQ conceptual model makes distinctions among these constructs to facilitate the development of a measure of quality in family-provider relationships. The model includes distinct elements for attitudes, knowledge and practice to support wording of individual items that will capture both the unique and the overlapping dimensions of providers' relationships with families. Environmental features also include specific elements in preparation for the creation of an observational checklist that will be developed through the FPRQ project.

Although the measures review was originally conceived as part of the literature review, it soon became clear that each review was capable of standing on its own. Therefore, we are presenting the measures review as a distinct product that focuses solely on existing instruments and issues related to the measurement of family-provider relationship quality. In total, we reviewed 62 instruments, which were identified through the literature review, existing compendia of early care and education measures, the 2010 Working Meeting, consultation with members of the FPRQ project's Technical Work Group (see Appendix A), and extensive searches in academic search engines (such as EBSCO and JSTOR) and on the Internet.[1]

This document begins with a description of the process we used to identify instruments and construct the summary review table (see Table 1). Then, an overview of the reviewed instruments is provided. This overview includes a description of the fields for which the instruments were developed, the structural features of the instruments, the content of each instrument as it relates to the constructs and elements in the conceptual model (see Figure 1), and the psychometric properties of the instruments. Section 2 discusses the applicability of extant instruments for the development of a new measure of family-provider relationship quality. We conclude with a discussion of some of the challenges in creating a new measure to assess the quality of family-provider relationships that can be used across settings and with culturally diverse groups of parents, providers, and programs.

[1] In addition to these 62 instruments, we identified an additional 17 measures that are not included in this review. Six of these we have not been able to locate. The other 11 did not contain relevant items.

Notes to Readers Regarding Terminology

Three terms used throughout this review warrant definition. First, the term "early care and education" (ECE) refers to all child care and early education settings for children birth to five years of age. This includes center-based programs (i.e., Head Start, pre-K, and community-based child care) and home-based child care programs (family child care, and family, friend and neighbor care providers). Second, our use of the term "parent" throughout this review reflects the current state of existing work, since most published literature and measures on the topic of family-provider relationships focus on the providers' relationships with parents. However, we acknowledge the role that extended family members play in the lives of children and in relationships with providers and include literature on family-provider relationships when possible. While most of the literature does not yet extend to this larger view of "family" interactions with providers, our intention is to be inclusive of all family members who serve as caregivers. Third, we use the term "providers" to refer to any individuals involved in offering non-parental early care and education to children. This includes center staff (teachers, assistant teachers, aides); center directors; home-based child care providers who offer care in their homes to small groups of children; relative caregivers such as grandparents; and friends and neighbors who provide care that is legally exempt from regulation. In addition, in this review, "providers" includes staff within ECE settings who develop relationships with parents to provide parental supports and service referrals (i.e., Head Start family service workers); early intervention specialists and special education teachers when we refer to instruments from the early intervention field and special education fields; health-related professionals such as nurses when we refer to instruments from the health field; social workers or child welfare staff when we refer to those fields; and elementary school teachers and after-school staff when we discuss instruments that are intended for use in those settings.

Section 1: Examining Extant Instruments

In this section, we describe the process we used to identify and organize the extant instruments as well as our findings on the structural features and content of these instruments. The tables described in this section are available at the following links:

Table 1: "Summary of Measures of Family Provider Relationships"
Table 2: "Working Definitions of Key Elements of High Quality Family-Provider Relationships"
Table 3a: "Summary of Item Wording in Instruments – Attitudes"
Table 3b: "Summary of Item Wording in Instruments – Knowledge"
Table 3c: "Summary of Item Wording in Instruments – Practices"
Table 3d: "Summary of Item Wording in Instruments – Environment"

Table 1, "Summary of Measures of Family Provider Relationships," summarizes the individual structural and content features of each instrument that we reviewed. Table 2, "Working Definitions of Key Elements of High Quality Family-Provider Relationships," presents the definitions of the individual elements within each construct that guided the analysis of the content of items within the measures. Tables 3a – 3d summarize the wording of the items in the instruments.

Identifying Extant Instruments

As noted at the outset, the process for identifying measures of family-provider relationships began with a review of a measures table developed for the 2010 Family-Sensitive Caregiving and Family Engagement Working Meeting and reviews of two compendia of existing measures of quality in early care and education: (1) the Supply and Demand Compendium (Guzman, Forry, Rivers, Kuhfeld, Wandner, Atienza, & Whitney, 2009) prepared for the National Survey of Early Care and Education, and (2) the Quality Measures Compendium (Halle, Vick, Whittaker, & Anderson, 2010). Additional instruments were identified through the FPRQ literature review, which included conceptual and empirical research articles related to family-provider relationships in the fields of health, mental health, social work, family systems, early care and education, and K-12 education (Forry et al., 2012). Experts in the field who contributed to the planning of the Family-Sensitive Caregiving and Family Engagement Working Meeting in June 2010 also suggested relevant instruments.

To ensure that our list was as exhaustive as possible, additional instruments were identified through a key word search[2] of academic journal databases, including JSTOR and EBSCO, and on the Internet more generally. In some cases, we were not able to locate the instrument and its items despite its citation in a journal article. In these cases, we have summarized the instrument if sufficient information was available. The final list of instruments consists of 62 measures.

Organizing the Instruments

To facilitate analysis of the instruments, a table was created to summarize the individual features of the instruments (Table 1). This table includes information about the structural aspects of each measure, its content, and its psychometric properties. The structural features consist of the following seven categories:

- **type of instrument** (observational, interviewer-administered survey, self-administered questionnaire (SAQ), qualitative, Quality Rating Improvement System (QRIS));
- **type of respondent** (observer, parent, director/administrator, provider, other);
- **language** in which the instrument is available (English, Spanish, other);
- **type of setting** for which the instrument is intended (center-based, including Head Start, pre-K, community-based, other or non-specified; family child care; family, friend and neighbor care; K-12; non-specified);
- **ages of the child or children** with whose families the instrument was intended to be used (0-2, 3-5, 6-12, 0-18, unspecified);
- whether the instrument is **intended for a special population**; and
- a synopsis of **psychometric properties** of the measure, if available.

[2] Over 40 key words were used. Some of the most fruitful key words included: family-provider relationship, family-centered care, quality of parent-provider/caregiver/teacher relationship, family-sensitive caregiving, family engagement, family/parent-involvement, and family support.

Table 1 also includes categories for individual elements of the four constructs (attitudes, knowledge, practices, and environmental features) identified in the FPRQ conceptual model. The definitions of the elements were used to "code" the items in the instruments into their respective categories. The constructs and their individual elements include the following (see also Table 2 for full definitions of the constructs and elements):

- **Attitudes:** respect, commitment and caring, empowerment, openness to change, and contextual;
- **Knowledge:** theoretical/substantive knowledge (family functioning, child development, effective parenting skills), and family/child specific knowledge;
- **Practices:** relational skills and goal-oriented skills (advocate for and connect families, engage in joint goal setting, empower families to advocate for themselves, and provide child-specific information);
- **Environmental features:** invitational and welcoming environment, systems and media for communication with families, materials reflective of families, resources for families: information, and resources for families: chances for peer networking (formal and informal).

Definitions of the individual elements, which are summarized in Table 2, were developed based on the companion literature review (Forry et al., 2012) and the Head Start/Early Head Start Performance Standards. After initial training on the definitions, a team of five researchers tested a small sample of instruments to ensure that these common definitions were applicable for coding purposes. The researchers then discussed the definitions to reach consensus about interpretation and to resolve discrepancies. Once agreement had been reached and the definitions were finalized, the researchers coded a small number of instruments and compared results to ensure that the coding was reliable and that individual items were being coded in the same way. Each member of the team then coded between 10 and 15 instruments. The resulting codes were then recorded in Table 1. If information was not available for a specific category, the cell was left blank in anticipation of further research, such as contact with the instrument's author. The two lead authors then reviewed the coding for all of the instruments to ensure that it was correct.

Tables 3a-d, "Summary of Item Wording in Instruments (Attitudes, Knowledge, Practices, Environment)", were developed using the same coding and quality control procedures detailed above for the measures summary table. As noted earlier, they summarize the wording of the items included in these instruments. The items are organized by constructs and within the constructs by elements and within elements by type of respondents (e.g., parent, provider, other). The tables include the exact wording of the items, the response scale, source, and psychometric information when available. Additionally, we note the setting type, age range for which the items and instrument were intended, and the type of instrument (e.g., observational vs. survey) in which the items appeared as well as other pertinent notes. Summary of Item Wording in Instruments Tables were designed to facilitate development of the first draft of the measure or measures. Since the items are organized within constructs by elements, researchers can easily review available items and wording and select an item or set of items that best capture the element as intended as well as identify areas where items may need to be developed or adapted.

Findings

The 62 instruments we reviewed came from a variety of fields. Instruments developed for early care and education settings were most common (42), followed by those intended for use in early intervention or special education (12). We also identified nine instruments that were intended for use in K-12 education or after-school programs, four instruments intended for use in medical settings, and one each respectively for child welfare settings, social work programs, and home visiting.

As a body, the instruments we reviewed reflect one or more of the conceptual perspectives of family-provider relationships (family support/family-centered care; parent involvement, family involvement, family engagement; and family-sensitive caregiving) that informed the development of the FPRQ conceptual model).[3] The perspectives of family engagement and family/parent involvement—and, to some extent, family-sensitive caregiving—are represented in the measures developed for early childhood and K-12 education settings, while those of family support and family-centered care are most apparent in the measures developed for early intervention, special education, and the health and social work fields. As we indicate below, promising items and approaches for measuring quality in family-provider relationships emerged in instruments across a range of perspectives and fields.

Structural Features of the Reviewed Measures

The following section describes the structural features of the measures we reviewed. These features include the type of measure, the type of respondent, the language or languages in which the measure is available, the setting for which it is intended, and the age ranges for which it is designed. The number of instruments in individual categories may exceed the total number of 62 instruments because some measures may apply to more than one category.

Type of measure. More than half of the instruments (35) we reviewed were self-administered questionnaires (SAQs). Among them were 13 instruments designed for early care and education. Examples include: the Early Childhood Longitudinal Study Birth Cohort Provider Questionnaire, the Emlen Scales, the Parent Caregiver Relationship Scale, and the Strengthening Families through Early Care and Education Program Self-Assessment (Table 1). Seven SAQs, including the Ready School Assessment, the Incredible Years Evaluation INVOLVE for both teachers and parents, and the Parent and Teacher Involvement Measure, were designed for use in elementary education settings.

Also included in the SAQ category were nine instruments that aimed to assess family-centered care in early intervention programs and special education. Examples include the Family-Centered Behavior Scale, Family-Centered Care Self-Assessment Tool (Family Voices), the Family Outcomes Survey Revised, and the Helpgiving Practices Scale. In addition, the four instruments designed for medical

[3] The reader is referred to the companion literature review (Forry et al., 2012) for a discussion of the conceptual perspectives that informed the Family-Provider Relationship Quality conceptual model.

settings (The Family Nurse Caring Belief Scale; the Medical Home Index: Pediatric; The Pediatric Patient-Family-Centered Care Benchmarking Survey; and the Hospital Self-Assessment Inventory, Patient- and Family-Centered Care) were SAQs, as was the one measure designed for social work programs (the Helping Relationship Inventory for Social Work Practice) and the one used for families involved in the child welfare system (the Parent Leadership Development Self-Assessment).

The other instruments were evenly divided between observational measures (17) and interviewer-administered surveys (18). Among the observational measures we reviewed, the majority (12) were intended for early care and education. Some examples include the Assessment Profiles for Family Child Care Homes and for Early Childhood Programs, the Early Childhood Environmental Rating Scale-Revised, and the Business Administration Scale. This category also included the Ready School Assessment and the School-Age Care Environmental Rating Scale-Revised for elementary school settings; the Home Visit Rating Scale, intended to assess home visitors; and the Family Provider Interaction Analysis, designed to assess the relationship between a provider and families with infant and toddlers with special needs.

Like the observational instruments, most of the 18 interviewer-administered instruments we reviewed were intended for early childhood settings, while a few were designed to be used in elementary school settings. Among the early childhood measures are the Three-City Study Questionnaire; the National Survey of Early Care and Education Design Questionnaires for center-based settings, home-based child care settings, and parents (which can also be used for school-age care); and the Work-Child Care Fit interview protocol and Continuity of Care and Provider Flexibility Scale, which assess work-family balance issues. Examples of other instruments in this category consist of interview components of observational measures, such as the Early Childhood Environmental Rating Scale-Revised, the Child Care Assessment Tool for Relatives, and the Program Administration Scale. In addition, our review found three interviewer-administered measures and one observational measure with an interview component designed for use in elementary school and after-school settings: the Assessment of Practice in Early Elementary Classrooms, the Ready School Assessment, and the School-Age Care Environmental Rating Scale-Revised.

In general, regardless of intended setting, interviewer-administered instruments use Likert-type scales or other types of scales to rate responses. Two of the instruments—the Strengths-Based Practices Inventory, which was used in an Early Head Start study, and the Work-Child Care Fit interview protocol, which was used in a small qualitative study in Chicago—were identified as qualitative because they used open-ended questions and probing.

By respondent. The distribution by respondent of the reviewed instruments reflects, in large part, the type of instrument. Seventeen instruments identified the observer as the respondent, consistent with the number of observational instruments. Among the other types of respondents, parents represented the largest category (30), followed by provider (22). There were eight instruments that identified the program director or administrator as the respondent.

Many of the instruments that use parents as respondents were SAQs, including the Incredible Years INVOLVE for parents, the Ready School Assessment parent interview, and the Hospital Self-Assessment Inventory Patient- and Family-Centered Care. There were also a number of SAQ measures for families with children with special needs that rely on parents as respondents including the Family-Centered Behavior Scale, the Family Empowerment Scale, the Family Outcomes Survey**,** and the Measure of Process of Care. Several interview-administered instruments for early childhood settings, such as the NICHD Study of Early Child Care Parent and Teacher Involvement survey, the Three-City Study Questionnaire, the Parent Caregiver Relationship Scale and the Work-Child Care Fit protocol, also use parents as respondents.

The 22 instruments which rely on providers as respondents include several early childhood observational instruments (e.g., Early Childhood Environmental Rating Scale-Revised) as well as several early childhood SAQs (e.g., Early Childhood Longitudinal Study Birth Cohort Provider Questionnaire). In contrast, only two early childhood instruments with providers as respondents were designed to be administered by interviewers. Specifically, these instruments are the National Survey of Early Care and Education center- and home-based settings interviews. Providers are identified as respondents in the health SAQs (e.g., Family Nurse Caring Belief Scale, Medical Home Index, and Pediatric Patient Family-Centered Care Benchmarking Survey), the Family Professional Partnership Tool (intended for families with children with special needs), and the Helping Relationship Inventory for Social Work Practice.

By language. All 62 instruments we reviewed are available in English. Four are also available in Spanish: the Early Childhood Environmental Rating Scale-Revised, the Early Childhood Longitudinal Survey Birth Cohort Provider Questionnaire, the Infant/Toddler Environmental Rating Scale-Revised, and the Medical Home Index. Five are also available in other languages. The Early Childhood Environmental Rating Scale-Revised and the Infant/Toddler Environmental Rating Scale-Revised are available in Italian, Swedish, German, Portuguese, Spanish, and Icelandic. The Medical Home Index is available in Chinese and the Measure of Process of Care is available in French. The School-Age Care Environmental Rating Scale- Revised (SACERS-R) is available in German and French.

By setting. A majority (42) of the reviewed instruments are intended for use in early care and education settings. Of these 42 instruments, 13 are not specified for a particular type of center-based setting, such as the Assessment Profile for Early Childhood Programs, the Child Development Program Evaluation Scale, and the Program Administration Scale, whereas 12 instruments are specifically intended for use in home-based child care and 3 are for use in family, friend and neighbor care. Twelve instruments are designed for use in elementary or after-school settings. Finally, 24 measures were classified into the "other" category, which includes instruments intended for early intervention settings as well as for medical and social work settings, and for families with children with disabilities.

By age. The "unspecified age" category represented the largest group of instruments (24), followed by those designed for families of preschool children ages three through five (23), and those

intended for families with infants and toddlers (17).[4] There were 17 instruments for families with children between six and 12 years of age.

Many of the measures in the unspecified age category were intended for use with families with children with special needs or disabilities or for medical or social work settings. This category also included the Home Visiting Rating Scale, which is for use in home visiting, and the Work-Child Care Fit interview protocol.

Content of Measures

Below we summarize the items and measures by the FPRQ conceptual model elements that they capture.

Attitudes. The construct that taps into attitudinal aspects of family-provider relationships consists of five elements: (1) Respect; (2) Commitment and Caring; (3) Empowerment; (4) Openness to Change; and (5) Contextual. Among these five elements, items related to the first three (respect, commitment and caring, and empowerment) are most common among the instruments we reviewed, with 39 instruments containing items for at least one of these elements. In contrast, only 12 instruments contain items for "openness to change" or "contextual".

Respect. Twenty-four instruments included items on respect in family-provider relationships. This includes a number of observational instruments (i.e., the Child and Caregiver Interaction Scale, the Home Visiting Rating Scale) and SAQs (i.e., the Emlen Scales, the Incredible Years Evaluation INVOLVE). Instruments also came from a variety of fields including early intervention/special education (e.g., the Family-Centered Behavior Scale, Family Outcome Survey-Revised, Family Professional Partnership Tool, and the Helpgiving Practices Scale) and health (e.g., the Family Nurse Caring Belief Scale and the Hospital Self-Assessment Inventory).

Items tapping into respect varied in approach and content. Most instruments measure the respect that providers show the parent or family and for the most part, measure it uni-directionally from the provider to the child or parent. Some items, such as "My child is treated with respect" from the Emlen Scales, tap into the parents' perception of the respect providers show the child. Other instruments, such as the Family-Centered Behavior Scale and Strengths-Based Practice Inventory, include items that potentially tap into respect for families' diversity (e.g., "Staff members do not make negative judgment about us because we are different from the staff member," "Staff member respects our family's beliefs, customs, and way that we do things in our family," or "The program staff respects my family's cultural and/or religious beliefs"), as well as items that tap into parents' perception of behavioral aspects of respect, such as "Staff member does not criticize what we do with our child."

[4] Several of the instruments were developed for more than one age group (e.g., 0-2 and 3-5 years old).

Commitment and caring. We identified 24 instruments that include items on commitment and caring in family-provider relationships. This includes several early childhood observational instruments such as the Assessment of Practices in Early Elementary Classrooms and the Child Care Assessment Tool for Relatives; and a number of surveys (SAQ and interviewer-administered) such as the National Survey of Early Care and Education, the NICHD Early Child Care (parent report), and Maine's QRIS Quality for Maine: Quality of Child Care Services SAQ.

A number of the items in these instruments measure providers' commitment towards the *family* rather than the parent or child, per se. For example, the Home Visit Rating Scale includes the item, "Home Visitor shows interest in what happens with the family." Similarly, the Family Nurse Caring Belief Scale includes the item "It is my responsibility to provide for the family's well-being when they are in the hospital with their child." In contrast, several instruments, such as the Emlen Scales and the Incredible Years Evaluation INVOLVE, assess the extent to which the provider cares for parents or child through items like "The caregiver is warm and affectionate toward my child," or "You feel your child's teacher cares about you."

Empowerment. Twenty-two instruments included items to measure the extent to which providers help to empower parents. This includes a number of survey instruments, such as Family Empowerment Scale and the National Survey of Early Care and Education Parent Questionnaire, and observational instruments, such as Home Visit Rating Scale and Family Provider Interaction Analysis scale.

The Strength-Based Practice Inventory offers five items that tap parents' perception of the degree to which providers help to empower them including "Program staff help me to use my own skills and resources to solve problems," "Program staff encourage me to think about my own personal goals and dreams," and "The program staff work together with me to meet my needs." The Hospital Self-Assessment Inventory includes a 19-item scale that assesses the extent to which patients and families serve and shape hospital committees and task forces, two different but important perspectives to capture under empowerment in family-provider relationships. Other examples of items that measure empowerment from the parent perspective include "I am able to work with agencies and professionals to decide what services my child needs," and "I believe that parents can have an influence on services provided for children." It is important to note that, while these items tap into whether a parent feels empowered, they do not assess whether that empowerment is facilitated by their relationship to the provider.

Openness to change. We identified six instruments that include items to assess openness to change within family-provider relationships. These include items in the Emlen Scales, Family Nurse Caring Belief Scale, Family Provider Interaction Analysis,[5] National Survey of Early Care and Education (Household and Center-based Survey), and the Three City Study. For the most part, items measured parents' perception of the extent to which providers are open to new ideas (e.g., "My caregiver is open

[5] We were unable to locate full item wording for this instrument.

to new information and learning"). The National Survey of Early Care and Education (Center-based Survey) includes an item on the director's perception of the importance of providers being responsive to parents' suggestion about their child's care ("How important to you is it that your lead teachers pay attention to the suggestions parents make about care for them?"). The one instrument that measures openness to change from a provider's perspective is Family Nurse Caring Belief Scale which includes the following item, "It is my responsibility to change my plan of care over time to incorporate what the family feels is right for them given their perspective of the situation with the child." All of the items measure the parent's, provider's or director's perceptions of the extent to which provider should be or is open to change, but none tap into the extent to which parents are open to change based on information or advice they may have received from their provider.

Contextual. We identified seven instruments that include items that measure whether providers have a contextual perspective (i.e., viewing the family as a unit, appreciation for the broader context in which the child's development and family's situation are located). Items tapping into this element are found in the Business Administration Scale for Family Child Care, Child Care Assessment Tool for Relatives, Emlen Scales, Family-Centered Care Self-Assessment Tool, Work-Child Care Fit Interview protocol, Family-Centered Behavior Scale, and Hospital Self-Assessment Inventory. Items cover a range of contextual perspectives, such as the extent to which a program assesses whether the child and family are a good fit for the program, the parents' comfort level in sharing information about family life, how often providers and parents talk about what is happening at home and in the parent's life, and the extent to which parents are invited to present to staff how cultural values and family life should be taken into account in determining a child's treatment.

Knowledge. Among the items we sought to identify in our review of existing instruments are those related to providers' or families' knowledge. Two types of knowledge are included in this category: (1) *theoretical/substantive knowledge* of topics such as family functioning, child development, and effective parenting skills; and (2) *family/child-specific knowledge*. Among these elements, instruments with items related to family/child-specific knowledge are most common (17). Instruments containing these items far exceed those related to theoretical or substantive knowledge. There are six instruments with items related to theoretical or substantive knowledge of family functioning, six instruments related to knowledge of child development, and only one instrument related to knowledge of effective parenting skills.

Theoretical/substantive knowledge: Family functioning. The six instruments reviewed that contain items on family functioning are evenly divided among three fields: early childhood education, early intervention, and health. The two early childhood instruments are the Strengthening Families Self-Assessment and the National Survey of Early Care and Education; the two early intervention or special education measures are the Family-Centered Care Self-Assessment Tool and the Family-Centered Behavior Scale; and the two health measures are the Hospital Self-Assessment Inventory and the Family Nurse Caring Belief Scale.

Of the early childhood instruments, the Strengthening Families Self-Assessment includes the widest array of items about family functioning. These items range from specific questions about staff's knowledge of relationships within the family (i.e., parent-child relationships, sibling relationships) to the availability of training on a variety of family health and well-being issues such as depression, mental illness and substance abuse. One of the early intervention measures, the Family-Centered Care Self-Assessment Tool, also includes items related to whether the staff asked about family issues, such as how the child's diagnosis and treatment might affect stress at home.[6] Many of these items straddle the line between theoretical (e.g., knowledge of issues that might exist) and practical knowledge (e.g., issues more closely pertaining to how the specific family is functioning) of family functioning. By contrast, the items in the Family Nurse Caring Belief Scale are less direct, asking providers how they consider family well-being while children are in the hospital or understanding that families' experiences are equally important as the care of the child.

Theoretical/substantive knowledge: Child development. Six of the instruments we reviewed include items related to knowledge of child development. Five instruments are designed for the early childhood field: the Emlen Scales, Partnership Impact Research Study Parent Questionnaires, Quality for Maine, Strengthening Families Self-Assessment, and the Three-City Questionnaire. The sixth one, the Family-Centered Care Self-Assessment Tool, is a health measure. Most of the items in these instruments relate to the caregivers' or providers' general knowledge of children and their needs (for example, "My caregiver shows she knows a lot about children and their needs" in the Emlen Scales, Quality for Maine and the Three-City questionnaire). However, the Strengthening Families Self-Assessment uses language related to knowledge about specific developmental domains such as social-emotional and physical development.

Theoretical/substantive knowledge: Effective parenting skills. Only one of the instruments we reviewed includes items related to the provider's or caregiver's knowledge of parenting skills. Specifically, the Strengthening Families Self-Assessment includes a statement about the staff's knowledge of parenting practices across cultures and ethnicity. It also includes items related to staff discussions with parents about discipline and to staff coaching of parents about how to interact with children effectively.

Family/child-specific knowledge. Seventeen of the instruments we reviewed include items related to the provider's or caregiver's specific knowledge of the family or the child. These items were reflected generally as the "Provider/caregiver knows my child," or "She knows my strengths," from the parent's perspective, and "I understand the needs of the child and the family," and "I understand the child or family," or "I know the family," from the provider/caregiver's perspective. The instruments with items for this element included several early childhood observation measures, such as the Assessment Profile for Family Child Care Homes, the Emlen Scales, the Child Care Assessment Tool for Relatives, and the Child Development Program Evaluation Scale. Several early intervention/special

[6] These items are not included in Table 3 (items summary) because they are not relevant to early care and education settings.

education measures also include items related to specific knowledge of families or children. Examples are the Family-Centered Behavior Scale, the Family Empowerment Scale, and the Measure of Process of Care. Three of the health measures—the Family Nurse Caring Belief Scale, the Hospital Self-Assessment Inventory, and the Medical Home Index: Pediatric—include items on family/child-specific knowledge as well, as does the Incredible Years Evaluation INVOLVE questionnaires for teachers.

Practices. The practice construct consists of two broad elements: (1) relational skills and (2) goal-oriented skills. Relational skills include positive, two-way communication that is responsive to families' preferences and providers' personal boundaries; sensitivity, flexibility, and responsiveness to support families' identified needs and goals; and, an equitable, culturally-responsive relationship between the provider/program and family that is inclusive of the families' primary home language when appropriate. Goal-oriented skills include the ability to advocate for and connect families to peer and community supports/resources; engage families in joint goal setting and decision-making; empower families to advocate for themselves, particularly in the transition to other early care and education arrangements, transition to K-12 school, or when trying to obtain social services; and provide information about the child's development or available family supports. Since the items tapping into the various aspects of relational skills (e.g., two-way communication, sensitivity, flexibility and responsiveness, etc.) are often measured through similar or interrelated items, these are summarized together. In contrast, items measuring various aspects of goal-oriented skills are often distinct and thus are summarized separately.

Among the instruments we reviewed, items related to relational skills are most common, found in two-thirds of the instruments (43). The second most common set of items pertain to the goal-oriented skills of providing child-specific information (i.e., sharing information related to the individual child's development and/or family supports) (33). Third most common were items related to the goal-oriented skills of advocating for and connecting families to peer and community supports/resources (20). These were closely followed by items pertaining to the goal-oriented skills of engaging families in goal setting and decision-making, found in close to one-fourth of the instruments reviewed (15). The least commonly found items were for the goal-oriented skills of empowering families to advocate for themselves, particularly in the transition to other early care and education settings or schools and when trying to access social services (6).

Relational skills. The majority of the items pertaining to relational skills come from early childhood instruments, predominantly from SAQs. Items tapping into relational skills largely focus on parent and provider communication about the child and, in some cases, the tone of the communication. For example, the National Survey of Early Care and Education includes a series of items about the frequency with which parents talk to providers about the concerns they may have about their child's behavior, what the provider is doing with the child, concerns about the child's development and direction to support child's learning at home. Many of the items tapping into the frequency or tone of communication measure communication uni-directionally (from parent to provider or provider to parent), for example, "The staff member listens to us," and "The staff member talks in everyday language that we can understand." However, this review found a few items that denote the presence of

bidirectional communication about the child's development and goal setting, as well as provider sensitivity and responsiveness to families' needs and goals. For example, the Emlen Scales includes the item, "My caregiver and I share information," while the Family-Centered Care Self-Assessment Tool includes a number of items that rate the frequency with which providers work in partnership with families to make health care decisions (e.g., "Do you and your staff partner with families to help define their role in their child's care?"). A few instruments include items that assess providers' sensitivity towards the family's culture and linguistic abilities (e.g. having a service provider who speaks parents' primary language) such as, "The diversity of families is celebrated and used as a basis for learning."

Goal-oriented skills: Advocate and connect families. Instruments including items to assess whether providers advocate for and serve as bridges linking families to peer and community supports and resources came from various fields, including early childhood, health, and early intervention services (e.g. Family-Centered Care Self-Assessment Tool, Medical Home Index, and Measure of Process of Care). Several of these measures focus on whether information was provided to families regarding community resources and connecting families with peers and resources in their community. One example is an item from the Measure of Process of Care Questionnaire, which asks parents to rate to what extent "[the center staff] gives you information about the types of services offered at the center or in your community" and "provides advice on how to get information or to contact other parents." Other instruments have items that focus more directly on "active" practices with regard to advocating and connecting families, such as "The program connects you with services and people" from the Family Outcome Survey-Revised.

Goal-oriented skills: Engage in joint goal-setting. Items that assess whether service providers collaborate and engage families in joint goal-setting and decision-making primarily come from measures designed for use in health or early intervention settings (e.g., A Hospital Self-Assessment Inventory, Patient- and Family-Centered Care, Measure of Process of Care, and Medical Home Index: Pediatric), although there are also some from the early childhood education field (e.g., Qualistar Rating Criteria Chart and Teaching Pyramid Observation Tool). These items focus mainly on the extent to which service providers listen to and understand the family's perspective, or the degree to which providers and families collaboratively set goals for the well-being of the child. For example, the Family Nurse Caring Belief Scale has an item, "When nurses utilize the family as a significant source of information, the child's care is improved." These measures, while largely tapping into the providers' beliefs about joint goal setting, could be adapted to measure parents' belief as well as providers' and parents' behaviors with regard to joint goal-setting.

Goal-oriented skills: Empower family to advocate for themselves. Few of the instruments we reviewed include items that measure the extent to which service providers empower families to advocate for themselves. These measures primarily come from family-centered early care and education instruments or instruments designed for programs serving children with disabilities (e.g. the Family-Centered Care Self-Assessment Tool and the Helpgiving Practices Scale). Items focus on service providers encouraging and showing families how to actively seek community services, know their rights as parents, and voice opinions with professionals. The Family-Centered Behavior Scale, for example,

contains several items that tap into this aspect such as "The staff member encourages me to speak up during meetings with professionals when there is something that I want to say." Empowerment is also conceptualized in terms of service providers helping families recognize their strengths, skills, and goals as the following item from the Strength-Based Practices Inventory illustrates, "The program staff help me to see strengths in myself I did not know I had."

Goal-oriented skills: Provide child-specific information. Items assessing whether the provider gives parents information about their child's development come from instruments designed for a range of settings, including early childhood education, family-centered care, early interventions, and health care (e.g., Child/Home Early Language and Literacy Observation, Family Outcomes Survey-Revised, and Hospital Self-Assessment Inventory). Some items conceptualize sharing child-specific information as a mutual effort between parents and teachers. For example, an item in one observational measure, the Assessment Profile for Family Child Care Homes, instructs the observer to look for evidence of bidirectional information between parent and service provider. Several of the items tap into unidirectional (mostly teacher to parent) efforts to communicate information about the child, such as the item from the Assessment of Practices in Early Elementary Classrooms which asks whether "the teacher communicates with families at least once a month concerning each child's overall progress at school."

Fewer items were identified that measure the extent to which information about the child is transmitted to parents in the context of their home environment or through mentoring-type interactions. Possible exceptions include several observational instruments such as the Home Visit Rating Scale which includes the following items: "Home visitor brings material or activities to the home to promote parent-child interactions;" "Home visitor provides appropriate suggestions and encouragement for parent-child interactions;" or "Home visitor uses materials already in the home to promote parent-child interactions."[7]

Environmental features. The environmental features category consists of five elements: (1) invitational and welcoming environment; (2) systems and media for communication with families; (3) materials reflective of families; (4) resources for families: providing information about resources and services in the program and the community; and (5) resources for families: chances for peer-to-peer networking (formal and informal). Among the instruments we reviewed, the most common items are ones related to invitational and welcoming environment, such as open-door policies, opportunities for parents to participate in the program, opportunities for parents to participate in educational programs, and opportunities for parents to participate in advisory boards (present in 30 instruments). Items related to resources for families (information about services in the program and the community) are the next most common, found in 20 instruments.

[7] These items are not included in Table 3 (items summary) because they are not relevant to early care and education settings.

Items addressing systems and media for communication with families, including bulletin boards and newsletters as well as electronic communication such as texting, e-mail and Facebook, are found in a fewer number of instruments (19). Only six instruments contain items related to opportunities for peer-to-peer networking. Lastly, six instruments contain items assessing the element "materials reflective of families" (i.e., materials that are inclusive of fathers, culturally and linguistically reflective of families, or address issues relevant to families with children with disabilities).

Invitational and welcoming environment. As mentioned above, many instruments across the fields include items related to offering an invitational and welcoming environment. Of the measures we reviewed, 30 include items for this element, and slightly more than half (16) of these were designed for use in early care and education settings. Among the instruments targeted to early care and education settings, items are most commonly reflected in questions about participation in advisory boards or involving parents in the program as volunteers in the classroom or other types of activities. There are also some items related to the physical space and whether there is a comfortable space for families to meet. Some instruments such as the Emlen Scales and the Incredible Years Evaluation INVOLVE parent questionnaire, for example, ask direct questions about whether the parent feels welcome. Among the instruments designed for the health field, the Hospital Self-Assessment Inventory has items about a welcoming physical space, including parking, reception areas, and spaces for private conversations.

Systems or media for communication with families. Roughly one-third of the instruments we reviewed (19) include items related to systems and media for communication with families. Among the early childhood instruments that include items on this element are the Assessment Profile for Early Childhood Programs, the Child/Home Early Language and Literacy Observation, Program Administration Scale, the Early Childhood Environmental Rating Scale-Revised (ECERS-R), and the Teaching Pyramid Observation Tool. Many of the items relate to the availability or use of multiple modes of communication (e.g., informal communication, e-mail, phone calls, bulletin boards, and newsletters). Some also specify the frequency of the communication such as "The program offers daily written communication about your child's day," or "Teacher uses regular (at least once a week) informal communication."

Among the other instruments with items related to communication are the Ready School Assessment for elementary school settings, and instruments designed for the health field such as the Hospital Self-Assessment Inventory and the Medical Home Index. These instruments include a variety of forms of communication. For instance, the Hospital Self-Assessment Inventory lists pagers as a system for communicating with families.

Materials reflective of families. Within the environmental features construct, items measuring materials reflective of families are only present in six instruments. This includes a small number of instruments designed for the early care and education field (Strength-Based Practices Inventory, the Partnership Impact Research Study Parent Questionnaires, Strengthening Families Self-Assessment director/administrator and provider report), and two instruments designed for the health

field (the Hospital Self-Assessment Inventory and the Medical Home Index). Only one of the instruments reviewed, Strengthening Families Self-Assessment, includes specific items about fathers.

Resources for families: Providing information. Among the instruments with items related to providing information to families about program services and services in the community, 13 are for use in early childhood settings or with early childhood populations. They include six of the 17 observational instruments including the Assessment Profiles for Family Child Care Homes, the Business Administration Scale for Family Child Care, the Child Development Program Evaluation Scale, and the Teaching Pyramid Observation Tool. Most of these items in these instruments relate to the availability of information about resources that are relevant to the parent. For example, Business Administration Scale for Family Child Care includes an item, "The provider gives parents descriptive information regarding tax credits, child care subsidies, or employer child care benefits."

One interviewer-administered instrument for early childhood, the Work-Child Care Fit measure, also includes items related to "resources for families: information about program services and services in the community." In addition, five early childhood SAQs have items on this element. The Strengthening Families Assessment includes the broadest range of items. In addition to an item on written information on child development and parenting available to families in their own language, it has items asking about the availability of information related to families' needs such as crisis services or concrete supports. The Strengthening Families Self-Assessment also includes an item indicating whether up-to-date information about the business hours and location of services is available (e.g., "The program maintains up-to-date information about services in the communities such as: food pantries, domestic violence services, shelters, respite care for children, alcohol and substance abuse services, mental health services, economic supports, and legal assistance.").

A number of health-related instruments, such as the Medical Home Index, Hospital Self-Assessment Inventory, and Pediatric Patient-Family-Centered Benchmarking Survey, also have items related to resources for families. Among the items in the Medical Home Index, for instance, is one about the availability of "significant office knowledge about family and medical resources and insurance." Fewer measures from other fields include items related to resources for families. Only one of the nine measures for elementary school or after-school settings—the School Age Care Environmental Rating Scale-Revised—has such items. Similarly, only a small number of the measures for early intervention or special education—the Family Outcomes Survey, the Measure of Process of Care, and the Virginia Family Survey—include items related to resources for families. These items are not specific, asking only about the provision of information about community services in general.

Resources for families: Chances for peer-to-peer networking (formal and informal). The number of instruments with items related to resources for peer-to-peer networking for families (6) was the same as that for materials reflective of families. Of the instruments with items related to this element, early childhood measures are the most common, with four. They include two SAQs (Family-Centered Care Self-Assessment Tool and Strengthening Families Self-Assessment); one QRIS (Qualistar Rating Criteria Chart); and one qualitative instrument (the Strengths-Based Practices Inventory). In

addition, items related to this element were also included in school-age, special education, and health instruments (e.g., Hospital Self-Assessment Inventory and the Measure of Process of Care).

Most of the items in these instruments focus on the availability of opportunities for parents to spend some time together. These could take the form of parent meetings, support groups, or family-to-family gatherings. For example, the Strengthening Families Self-Assessment specifies that opportunities both within and outside of the program should be available for families to get to know one another, and that information should be provided about activities in the community that families might want to attend.

Overview of Psychometric Properties of Existing Measures

We located psychometric information for more than half (40) of the instruments we reviewed. The psychometric information provided ranged in level of detail, from factor analysis and reporting of Cronbach alphas only, to construct, concurrent, predictive, and criterion validity. The majority of reviewed measures report strong psychometric properties (e.g., Assessment Profile of Early Childhood Programs, Business Administration Scale for Family Child Care, Child and Caregiver Interaction Scale, and Family-Centered Behavior Scale), while a number of measures were found to have just moderate reliability (e.g., Assessment of Practices in Early Elementary Classrooms). For many of the observational instruments, the focus of psychometric assessment is inter-rater reliability, a property of a measure that may be of little value in developing survey items.

Many measures do not report the results of psychometric analysis for specific subscales, including those that directly tap into the family-provider relationship. Of the measures we identified, only 11 reported psychometric information for the specific subscale or scales directly measuring family-provider relationships (e.g., Emlen Scales, Early Childhood Environmental Rating Scale-Revised Family Nurse Caring Belief Scale, Family Outcome Survey-Revised, Incredible Years INVOLVE-Parent and Provider Questionnaires, and Measure of Process of Care-Pediatric Patient-Family Centered Care). In addition, few studies reported conducting psychometric testing for various subgroups such as race/ethnicity, age of child, or language spoken at home (for exceptions, see Strength-Based Practice Inventory). However, a number of studies (e.g., Family-Centered Behavior Scale, Family Empowerment Scale, Family Outcome Survey-Revised, Family Provider Interaction Analysis, Measure of Process of Care) were designed for, and tested with, families with special needs children.

Section 2: Methodological, Conceptual, and Logistical Considerations and Future Directions

In this section, we outline a number of key considerations for developing measures of the quality of family-provider relationships. These considerations include applicability across settings, unit of analysis, perspectives incorporated into the measure, type of respondent, reference group and reference period, and data collection points and timing.

Applicability Across Settings

A key goal of this project is to develop a measure that is applicable to a diverse group of settings including center-based early care and education programs (e.g., Head Start, pre-K, community-based child care) and home-based child care. Such a measure and the resulting data have several advantages, including the potential for wide use and the ability to provide comparisons across settings. In addition, a measure designed for diverse settings is likely to capture variation across cultural and language groups because research indicates that families with different ethnic and cultural characteristics tend to use some types of child care arrangements more than others (Capizzano, Adams, & Sonenstein, 2000; Johnson, 2005; Snyder & Adelman, 2004). For example, families of color rely on home-based child care for their infants and toddlers more commonly than other families (Porter, Pausell, DelGrosso, Avellar, Hass, & Vuong, 2010).

Developing a measure that is applicable across multiple settings will be challenging for a number of reasons. While many or most of the constructs that have been identified through the literature and specified in the conceptual model are applicable across settings, how they play out or how they can be operationalized may differ significantly across settings. Similarly challenging is developing measures that highlight the particular strengths of each setting while not "disadvantaging" others. For example, books about parenting, advisory boards, and multiple communication systems are all potential indicators of environmental constructs, but they are also more likely to be present (and are more reasonable to expect) in large center-based settings with sufficient resources and space than in small home-based child care settings. Similarly, holding periodic formal parent-teacher conferences may be less appropriate for home-based child care providers who often serve a small number of children and who may have more informal opportunities to have conversations with parents than teachers in center-based settings (Bromer & Henly, 2009).

One possible solution to address these challenges is to develop items that measure the same construct and are tailored (preferably slightly) to each setting. Such an approach would allow for comparability across constructs and provide measures that are meaningful and appropriate within each setting. It might also be possible to develop a core group of items that could be used across settings with sub-sets of items intended for specific settings.

Unit of Analysis

Identifying the unit of analysis is key in all measure development. For measures of family-provider relationships, the unit of analysis could be the provider, the program, the child, the parent, or the family. Determining the unit of analysis is a decision that is best aligned with the purpose of the measure. For example, if the measure is intended to be a monitoring tool, the unit of analysis could be the provider (e.g., the home-based child care provider or teacher). The provider could also be the unit of analysis if the measure is intended to assess family-provider relationships as an element of early care and education quality. On the other hand, it might also be possible to consider the program as the unit of analysis (e.g., sampling all teachers/providers or a random subset of teachers), especially in the case of center-based settings or large group home-based child care homes, because established policies may have an effect on individual providers' interactions with families, such as their flexibility to communicate with families or their capacity to engage families in program-wide activities.

The child or the parent may be the appropriate unit of analysis if the measures are included in national household surveys where the child or the parent is the reference point for questions. Similarly, some items reviewed here include wording that assesses the relationship between the provider and the family rather than one parent. For such items, the unit of analysis is the family rather than the parent. Additionally, identifying who is the appropriate respondent for family-based items may be challenging since reports will likely vary across family members and will reflect their own individual experiences. Ideally, one should select a respondent who is able to report on or whose experiences are representative (reflective) of the unit of analysis.

Perspective

Related to the unit of analysis are the perspectives incorporated into the measure. For example, should measures of family-provider relationships take into account the quality of the family-provider relationship as experienced by the provider, by the parent, by the family, some combination of two of those, or all three? Take, for example, the issue of respect. Items on respect could measure the perspective of parents—that is, the extent to which they feel respected by providers—or the perspective of providers—that is, the extent to which they feel respected by the parents and families they serve—or both. The items reviewed thus far have largely measured the degree to which respect is shown to parents and families by providers. With the exception of "communication and collaboration" (which has been defined by many researchers, including those writing this review, as bi-directional), it is unclear the extent to which items measuring other constructs and elements in the conceptual model should also include multiple perspectives. It is worth noting that not all constructs may be appropriate to measure from multiple perspectives, such as some environmental features or media for communication, since typically what is measured is the presence or absence of these resources. The issue of which perspective(s) a measure of family-provider relationships should take may depend on the purpose of the measure (e.g., monitoring tool, research), the theoretical model, the intended outcomes (e.g., child and family well-being vs. provider well-being), or the extent to which research suggests that

multiple perspectives provide different information or are related in varying ways to family or provider well-being.

Respondent

Closely related to the decision about perspective is the question of who is the most appropriate respondent. Respondent differs from perspective in that the respondent is the person providing the data. Perspective is the viewpoint or the person about whom we want the data. For example, parents are often the respondent but are providing data from the perspective of their child. Typically, the respondent is the person who has access to or possesses the target information. Items of family-provider relationships could be asked of a teacher/child care provider, an administrator or director, or parent or other family members. In general, measures of family-provider relationships are best asked of parents and providers (e.g., the two parties making up the relationship). It may be useful among providers, however, to sample a variety of individuals who have different roles so that, for example, relationship quality with lead and assistant teachers as well as aides and family service workers (in Head Start) is captured.

For parents/families, one possibility is to use the family member who has the most contact with the provider as a respondent, similar to many national surveys that select the parent who is most knowledgeable about the focal child. The National Survey of Children's Health, for example, asks questions of the parent who is most knowledgeable about the focal child, and approximately 75% of respondents were mothers (Blumberg, Foster, Frasier, et al., 2009). While it may be the case that mothers have the greatest interaction with their child's care providers, it may also be useful to expand our measures to include the experiences of fathers and other family members, such as grandparents, who help care for and raise children.

Reference Group

For the most part the reference groups (the person or group the questions are inquiring about) are obvious when a family has one child and is only using one early care and education provider. For families with multiple children, however, a choice needs to be made about whether to ask the questions about a focal child or each child in the household. The former strategy minimizes respondent burden, but it does not capture the family's full experience. In addition, for families who rely on multiple providers, it is important to consider whether the focus should be solely on the primary provider (e.g., the one with whom the child spends the most out-of-home time) or whether additional providers should be included as well.

Among providers, many of whom serve multiple children/families, the issue of reference group is complicated. Providers could be asked to report about the quality of the relationship they experience with the families of all their children or with a reference child's family. In general, survey research suggests that measures tapping into relationships with one individual may be of higher quality than measures inquiring about relationships with a number of individuals. For example, when asked to

report on the quality of relationships experienced with all the families they serve, a provider may decide to average her experience/perceptions across all families, focus her assessment on one family with whom she enjoys a particularly strong relationship, or focus on a family with whom she has the most challenges. This variability is problematic because it is likely to be non-random. On the other hand, there are some elements (e.g., environmental features) of the family-provider relationship that may be best measured at a global level, or applied to all families, as they are not likely to vary across families. For example, the presence of multiple modes of communication, or an open-door policy, are features of a setting that are most likely not family-specific.

Reference Period

To the extent that the current measure will be developed as a survey instrument, it will be important to consider the most appropriate reference period especially for those items that tap into relational and practice aspects of the family-provider relationship. In general, a shorter reference period improves the accuracy of the respondent's recall. However, attention must be paid to regularity and frequency of occurrences. For example, questions about parent-teacher conferences may be better suited for a longer reference period, such as a year, while items about communication regarding how the child's day went or activities the child engaged in may be asked in reference to the last week or month. The selection of the reference period is not only important for recall but also has implications for the observed variance. For example, including infrequent and frequently occurring events on the same frequency scale may upwardly bias reports of frequently occurring events.

Number of Data Collection Time Points Needed

Because the quality of relationships likely varies over time, and because experiences within relationships are not homogenous, it is important to consider the number of points in time reports of family-provider relationships are needed in order to obtain accurate measures of their quality. These considerations must also take place within cost and time considerations, and the degree to which the reliability and validity of data are improved by collecting data from multiple time points rather than a single point in time. Considerations also need to be made in terms of the mode of data collection. Cross-sectional surveys, for example, collect data from one point in time whereas observational measures are often used to collect data at multiple points in time.

Timing of Data Collection

The timing of data collection is another important consideration for measuring family-provider relationships. For those providers that follow the school year, it may be best to collect data in the late fall or early winter in order to provide sufficient time for relationships to be established. For example, the National Household Education Survey collects data during the first four months of the calendar year. Similarly, the 2012 National Survey of Early Care and Education will be fielded between January and April. For those care settings that do not follow a school-year schedule, it may be useful to collect data from those families and providers who have been in an arrangement for at least three months. For observational measures, it is important to consider which time(s) of the day (i.e., morning, afternoon,

pick-up/drop-off) and which days of the week (some days may have regularly scheduled events for all of the children in the program) would be best to collect data, as well as whether multiple observations throughout the day or week are needed.

Social Desirability

A concern in developing measures that tap into the quality of family-provider relationships is the potential for social desirability bias and, consequently, a lack of variance (Zellman & Perlman, 2006). These issues have been common in many self-report measures of child care quality. Parents may report higher quality than is actually the case because they are reluctant to admit that they have placed their child in a setting that is less than optimal. Similarly, providers may over estimate the quality of their program. Social desirability bias may be particularly difficult to combat in items that focus on perception or attitudes. In contrast, items tapping into actual practices may be less subject to social desirability, resulting in a better distribution of responses. Likewise, caution may be warranted for provider measures that focus on regulations or components of standards as they, too, may be subject to social desirability or a topping out of reports (i.e., where the majority of providers report meeting the minimum standards).

Establishing Thresholds of High Quality Family-Provider Relationships

If the measure of family-provider relationships is intended to be used for monitoring purposes, such as in QRIS systems or the Head Start monitoring system, it may be useful to develop threshold indicators of what constitutes high, moderate, and minimal levels of quality family-provider relationships. These thresholds can be developed a priori based on a theoretical model and prior work, or after pilot testing once the data and the distributions are available. Work done on developing observational measures in similar areas, such as the Early Childhood Environmental Rating Scale-Revised, the Business Administration Scale for Family Child Care, the Child Development Program Evaluation scale, and the Home Visit Rating Scale, may be useful to examine since many establish thresholds for various categories of care. The challenge will be to create thresholds that are reasonable at the middle and upper ends and that are neither too difficult nor too easy for respondents to attain.

Applicability of Measure to Culturally and Economically Diverse Groups

As noted above, a key goal of this project is to develop a measure that is applicable not only to multiple settings but also to culturally and economically diverse groups. Several issues are critical to developing measures that are applicable across culturally and economically diverse groups. First, one should consider the extent to which target constructs and their elements apply to various groups. That is, do the key components of family-provider relationships vary or differ across groups? Second, it is important to explore the value or weight that groups give the various components. For example, while groups may agree about the list of characteristics essential to family-provider relationships, they may value these components differently. Likewise, while the characteristics may be similar, how these characteristics play out and are experienced across groups may differ.

Communication is an example of a characteristic that is likely valued and considered important across most, if not all, groups. Yet what is considered appropriate communication between families and providers may differ tremendously based on the cultural heritages of each person involved. For example, members of some cultural groups may believe that discussions about difficult family issues with individuals outside of the family, especially providers, is not acceptable, and may be reluctant to participate in such conversations. Another example is respect, as the role that respect plays in family-provider relationships is likely a function of cultural values and norms. In addition, power dynamics may be governed by cultural norms and shape both parents' and providers' perceptions of appropriate family-provider relationships. Focus groups with target populations as well as feedback from key experts working with various communities may be particularly helpful in identifying appropriate items for measuring constructs across groups, and for providing insights into how cultural norms shape experiences and perceptions.

Section 3: Existing Gaps, Promising Measures and Next Steps

This section presents some of the gaps that we identified in the measures of family-provider relationships that we reviewed. It also highlights some of the measures that include promising items for the FPRQ instrument. The section concludes with a description of next steps for the FPRQ project.

Existing Gaps

Our review identified several gaps in both structural and content features of existing measures. To some extent, these gaps reflect the considerations we have already discussed in this review. For example, in terms of structural features, there are few measures available in languages other than English, which may represent a challenge for creating a measure with items that are relevant, meaningful, and correctly translated for culturally diverse groups of providers and parents.

We also found some significant gaps in the content of items related to the specific constructs and their individual elements, specifically in the attitudes, knowledge and environmental constructs. For example, we found few items in the attitudes construct related to openness to change from the provider's perspective. The dearth of these items may signal difficulty in wording items that capture a provider's openness to change without resulting in socially desirable responses.

In addition, there was a lack of items related to theoretical/substantive knowledge elements of family functioning, child development, and parenting skills. This lack may be problematic in the context of developing a measure based on the FPRQ conceptual model, which hypothesizes that providers will have such a foundational knowledge to inform their practice. The assumption is that providers will be better able to respond to individual families and their children if they have an understanding of the theoretical underpinnings of how families interact with one another and how children develop. The absence of such knowledge may limit providers' capacity to provide appropriate and relevant support. A dearth of information about family functioning and child development may also have an effect on

providers' efforts to enhance parenting skills because they may not be able to suggest developmentally appropriate parenting strategies to support children's development. As a result, providers may encourage the use of parenting practices that are not be grounded in research. The few items that do exist lack specificity. In particular, they do not indicate whether providers have or whether they use theoretical or substantive knowledge about child functioning, child development, and parenting skills in their interactions with families.

Among the items related to knowledge of family-specific information, there is only limited evidence of attention to parents' work lives. This may be related to the lack of consideration of work-family balance issues in previous conceptualizations and measurement of early care and education quality (Bromer et al., 2011). Because the FPRQ conceptual model posits improved parental outcomes in this area, it would seem important to include sensitivity and responsiveness to parent work issues in the measure.

There were also few items found that related to materials reflective of families. It is possible that the notion of materials reflective of families is not being captured in extant instruments because it is difficult to distinguish between materials such as dolls or books for culturally diverse children in the program and items for families that honor their diversity or that are specific to fathers. Alternatively, this construct may not have been considered in the development of the instruments we reviewed. For those instruments that do include this element, there was a lack of specificity in some of the item wording, which may represent challenges for capturing variations in quality in this element. The same issue applies to the environmental element of "chances for peer-to-peer networking," where the wording is often general and not necessarily useful for distinguishing this kind of environmental support.

Another gap is the lack of clear distinctions among items related to elements within and across the constructs. In several cases, items in one construct overlap with another construct. It is difficult to distinguish whether some of elements in the attitudes construct, such as items related to respect, represent beliefs or practices. Similarly, items related to relational skills, an element in the practice construct blurs into attitudes. In addition, there is some overlapping between elements and items in the environmental construct and the practices construct. For example, it is often unclear whether items related to systems or media for communication, an element of the environmental features construct, reflect families' preferences for mode of communication or whether communication styles are bi-directional, two indicators that would capture the relational aspects of the practice construct. Similar questions can be raised about resources for families (providing information offered about services offered by the program and the community), which falls within the environmental features construct, and goal-oriented skills of engaging in joint goal setting, which is part of the practice construct. It is often unclear whether these items reflect families' interests and circumstances, whether they are simply present in the setting, or if providers use them to respond to specific family needs.

Promising Measures That Can Help Develop Measures of Family-Provider Relationship Quality

Of the 62 measures we reviewed, a number include promising items for assessing the constructs and elements of high quality family-provider relationships, which are summarized in the FPRQ conceptual model. Several instruments include a wide range of items that could be used in an interviewer-administered instrument, which could be used as a tool to monitor the quality of family-provider relationships. The Strengthening Families Self-Assessment, the Hospital Self-Assessment Inventory, the Medical Index Home, and the Measure of Process of Care all have a large number of items that could be used or adapted to assess the four constructs. In addition, several other instruments (e.g., the National Survey of Early Care and Education, the Work-Child Care Fit interview protocol) have promising items for assessing specific constructs such as provider attitudes, knowledge, and practices related to work-family balance issues. In short, our review of extant instruments found many items that can be used as is or adapted slightly to capture the FPRQ conceptual model's constructs and elements.

Concerning the environmental construct, the FPRQ project is considering developing a checklist to measure elements related to family-provider relationships in the early care and education environment. Several instruments, including the Environmental Rating Scales, the Child Development Program Evaluation Scale, and the Teaching Pyramid Observation Tool, have items that could easily be used in a checklist format. One consideration is whether or not a checklist could include interview questions to collect information about things that are not easily observable, such as a program's policy or resources. Another issue to consider in developing a checklist measure is the extent to which the checklist will rely on a document review, which may be a more intensive activity than a simple observation of environmental features.

Next Steps

The new FPRQ measure(s) will be developed through multiple steps, each of which is intended to build on and inform the other. These steps include an extensive item review, focus groups, cognitive interviews, pilot testing and a field test. The extensive item review will examine items collected during this review of existing measures, in order to identify potential candidates for inclusion in the FPRQ measure(s). Focus groups will be used to assess the extent to which the key constructs and elements of family-provider relationships have been identified by the literature and measures review as well as to obtain "native language" (terms and words that target populations use to talk and think about the target concepts). An initial set of items will be developed by adapting existing items or creating new items to fill gaps that have been uncovered by the findings from the measure reviews, expert consultations, and the focus groups. Cognitive interviews with parent and providers will be used to test these items. The cognitive testing will focus on the extent to which items are understood as intended and measure the target construct as well as whether respondents have the needed information to answer the questions. During the item review, focus groups, and cognitive interviews, definitions of key constructs and elements will be refined or expanded as needed. Using the results of the cognitive interviews, the items

will be refined and pilot tested with small convenience samples of providers and parents, followed by a field test with a larger, nationally representative sample. The resulting data will undergo psychometric analysis in order to identify a core set of items for use in a measure or measures of family-provider relationships. The resulting measure(s) will be accompanied by a manual that will document this process, summarize the findings, and provide guidelines about how the measure(s) should be used. Any revisions to the conceptual model or measures reviewed later in the project will be summarized and discussed in the manual.

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Appendix A:

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